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RESPONSE UNDER 37 CFR § 1.116  
EXPEDITED PROCEDURE  
EXAMINING GROUP 2123  
Docket No.: 21.1837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Munetaka TAKEUCHI, et al.

Serial No. 08/889,440

Group Art Unit: 2123

Confirmation No. 3473

Filed: July 8, 1997

Examiner: H. Jones

For: APPARATUS AND METHOD FOR SIMULATING PHENOMENA OF A PARTICLE OF SUBSTRATE PARTICLES AND ADSORBATE PARTICLES

**RECEIVED**

FEB 27 2003

Technology Center 2100

**RESPONSE TO FINAL REJECTION**

**CERTIFICATE UNDER 37 CFR 1.8(a)**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Attention: **BOX AF**

Sir:

This is in response to the Office Action mailed on September 17, 2002, and having a period for response set to expire on December 17, 2002. A Petition for a two-month extension of time is submitted herewith, extending the date for response to February 17, 2003. February 17, 2003 being a holiday, this Response is timely filed, with a two-month extension of time, by February 18, 2003.

The following remarks are respectfully submitted. Reconsideration of the claims is respectfully requested.

In the Office Action mailed on September 17, 2002, claims 1, 3-9, 11-20, and 22-31 were rejected under 35 U.S.C. § 112, first paragraph, for insufficient written description and for lack of enablement; claims 1, 16, 20, 23, and 24 were rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness; claims 1, 3-9, 11-20, and 22-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Misaka or Baumann in view of the Examiner's own experience and the taking of Official Notice; claims 1, 3-9, 11-20, 22-26, and 28-31 were

rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamada or Misaka or Baumann or Husinsky in view of Kinema/SIM or Reeves or Cohen; and claims 1, 3-9, 11-20, and 22-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohira in view of Kinema/SIM or Reeves or Cohen. The foregoing rejections are respectfully traversed.

Claims 1, 3-9, 11-20, and 22-31 are pending in the subject application, of which claims 1, 12, 16, 20, and 22-24 are independent. Care has been exercised to avoid the introduction of new matter.

The Applicants respectfully request reconsideration of the rejections.

**Submission of Source Code on CD-ROM:**

The source code, as requested by the Examiner, is submitted herewith, in compliance with 37 C.F.R. §§ 1.96 and 1.52. The Applicants assert that the source code does not provide any missing disclosure. The Applicants additionally assert that the source code is not intended to become part of the Specification.

**Claim Rejections Under 35 U.S.C. 112:**

In regard to the rejection of claims 1, 3-9, 11-20, and 22-31 under 35 U.S.C. § 112, first paragraph as having an inadequate written description (Office Action, p. 3-4, ¶¶ 4 and 5 (as properly numbered)), the Examiner requested that the Applicants indicate the support in the Specification for the claim amendments filed in the August 22, 2002 Amendment. The Applicants note that page 11, lines 10-13 of the Specification provide such support.

In regard to the rejection of claims 1, 16, 20, 23, and 24 under 35 U.S.C. § 112, second paragraph for indefiniteness (Office Action, p. 4, ¶ 6), the Examiner indicated that the phrase "physical condition" is ambiguous. The Applicants respectfully submit that the phrase is not ambiguous, and direct the Examiner's attention to page 11, lines 10-13 of the Specification.

The Examiner, in rejecting the claims under 35 U.S.C. § 112, first paragraph, questioned how the particles were "formed." The Applicants respectfully assert that the Examiner is not placing any relevance on the terms 'adsorbate' and 'substrate' as those terms are recited in the claims. The Specification discloses that the adsorbate particle collides with the substrate particle (Specification, p. 10, lines 15-16).

The Applicants respectfully request that the Examiner withdraw the rejections thereto.

**Claim Rejections Under 35 U.S.C. § 103:**

**Inherency:**

The Examiner continues to frequently rely on assertions of inherency as disclosing elements of the present invention. For example, in regard to the rejection of claim 1, the Examiner asserts that the kinetic condition setting unit and the particle motion computing unit are "inherent in particle simulators such as Monte Carlo simulators." (March 22, 2002 Office Action, item 12, pages 5-6; September 17, 2002 Office Action, item 13, pages 6-7)

In the Amendment filed on August 22, 2002, the Applicants traversed the Examiner's assertions of inherency found in the March 22, 2002 Office Action. The Applicants cited the standard to be applied, i.e., concrete evidence, and noted that the Examiner did not meet that standard in supporting his assertions of inherency. Specifically, the Applicants argued as follows:

"The Applicants respectfully traverse the Examiner's assertions of inherency (e.g., in regard to particle simulators and cluster simulation). The inherent teachings of a prior art reference are questions of fact. In re Napier, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995). With respect to core factual findings in a determination of patentability, the Examiner cannot simply reach conclusions based on his own understanding or experience, or on an assessment of what would be basic knowledge or common sense. In re Zurko, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). Rather, the Examiner must point to some concrete evidence in the reference in support of his findings. Id." (August 22, 2002 Amendment, p. 6) (underlining in original)

In the Examiner's Response to Arguments, at item 65 on page 33 of the September 17, 2002 Office Action, the Examiner failed to respond substantively to the Applicants' arguments in the Amendment filed on August 22, 2002. Instead, the Examiner charged that the Applicants misstated the references, and directed the Applicants to refer to the references. However, the Examiner continued his assertions of inherency, highlighting the same in italicized bold print and with double-underlining, without presenting any concrete evidence in support thereof. Specifically, the Examiner responded as follows:

"Applicant's characterization of the teachings of Baumann and Misaka again trivializes and misstates their inventions – *Again*, please refer to the detailed rejections as well as the teachings. For example, the characterization of the Baumann teaching as "...incoming spheres..." again ignores the teaching of a simulation of Sputtering – *that which Applicant is attempting to claim. Page 4.4.2 of Baumann discloses molecular dynamic simulation (simulation of trajectories)*. As per Misaka, see fig. 2; col. 9, line 65 to col. 10, line 9, wherein trajectories are discussed. *In either Baumann or Misaka, it is inherent that a source must exist for each particle.*" (September 17, 2002 Office Action, p. 33, item 65) (emphasis in original)

The Applicants respectfully submit that they have read the references; however, the Applicants cannot properly evaluate the Examiner's assertions of inherency, which relate to core factual findings in the determination of patentability, until the Examiner actually addresses the issue of whether the inherency is properly supported. The Applicants remind the Examiner that simply restating that something is inherent does not address the issue of whether a determination of inherency is proper.

**Lack of Motivation to Combine the References:**

The Applicants argued in the Amendment filed on August 22, 2002 that the Examiner had not adequately presented the motivation to combine the references for the rejections under 35 U.S.C. § 103. Specifically, the Applicants argued the following:

The Examiner does not even assert that someone of ordinary skill in the art would have been motivated to combine any of the references at the time the invention was made. Further, such motivation does not appear anywhere in any of the references, and the Examiner has not presented any actual evidence in support of the same. (Amendment, p. 7).

In the Examiner's Response to Arguments, at item 63, on page 32 of the September 17, 2002 Office Action, the Examiner dismisses the Applicants' arguments by stating the following:

In response to the abstract and conclusory arguments pertaining to *obviousness* and *motivation to combine* (pp. 6-7, paper # 34), please review the 103 rejections. (Emphasis in original)

The Applicants respectfully submit that they have reviewed the 103 rejections. The Examiner, in asserting the 103 rejections, simply does not assert any motivation to combine the references. The Applicants' argument thereon may appear to the Examiner to be abstract and conclusory, but the Examiner has not presented any actual evidence on which the Applicants could comment. The Applicants stated the standard, which requires the Examiner to set forth the motivation to combine the references, as a courtesy to the Examiner. The Applicants then stated that the Examiner had failed to meet that standard. However, the Examiner summarily dismissed the Applicants' arguments without addressing the substance of the same. The Applicants respectfully invite the Examiner to re-read the Amendment filed on August 22, 2002, specifically pages 6 and 7 therein. The Applicants respectfully request the Examiner to directly address the arguments and facts therein.

Because the Examiner still has not presented any actual evidence of the motivation to combine the references, as is repeatedly required by the Federal Circuit, the Applicants respectfully repeat their request that the Examiner withdraw the rejections under 35 U.S.C. § 103 for lack of the required motivation to combine the references.

**Attacking § 103 References Individually:**

MPEP § 706.02(j) sets forth the contents of a rejection under § 103: "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure" (emphasis in original).

In item 60, on page 31 of the Office Action, the Examiner states that "one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references" (citing In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981) and In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The Examiner misapplied the holdings of those cases.

The applicant in In re Keller argued that the Walsh reference could not properly be combined with either of the Keller or Berkovits references because they discussed non-analogous art. In re Keller, 208 USPQ at 880. The Court of Customs and Patent Appeals found that Walsh was sufficiently analogous to Keller and Berkovits to support its combination therewith. Id. at 881. The CCPA then noted that once a *prima facie* case of obviousness was established, the burden shifts to the applicant to rebut it with objective evidence of non-obviousness. Id. at 882. The applicant in In re Keller produced an affidavit that disputed the Examiner's interpretation of what the Walsh reference disclosed. Id. The CCPA then stated that "one cannot show non-obviousness by attacking the references individually where, as here, the rejections are based on the combinations of references." Id. The CCPA was commenting on the applicant's rebuttal of the obviousness conclusion in light of the conclusion that the combination was properly motivated. In fact, the CCPA addressed the references individually in determining whether sufficient motivation to combine the references existed. Id. at 881.

In In re Merck & Co., the Federal Circuit applied the quoted statement above from In re Keller to a similar factual setting, i.e., where the motivation to combine the references was already upheld, to hold that the applicant could not challenge one reference individually out of a combination of references. In re Merck & Co., 231 USPQ at 379-80.

In interpreting both cases, the Examiner simply misinterpreted the context in which the quoted statement was made in attempting to apply the holdings thereof to the subject application. As stated above, the Applicants have challenged the Examiner's combination of the references based on a lack of motivation to combine the references. In doing so, the Applicants have treated the references as unable to be combined, and thus, only deserving of being addressed separately. Until the Examiner supports the motivation to combine the references, there is no proper combination of the same warranting further argument.

Withdrawal of the foregoing rejections is respectfully requested.

There being no further objections or rejections, it is submitted that the application is in condition for allowance, which action is courteously requested. Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned

to attend to these matters. If there are any additional fees associated with filing of this Response, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 2-18-2003

By: 

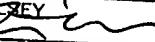
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CERTIFICATE UNDER 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231

on February 18, 2003

STAAS & HALSEY 

By:

Date : 2-18-2003